

Translation

PATENT COOPERATION TREATY

PCT/CH2003/000616



PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference IN 012-P/WO	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/CH2003/000616	International filing date (day/month/year) 12 September 2003 (12.09.2003)	Priority date (day/month/year) 13 September 2002 (13.09.2002)
International Patent Classification (IPC) or national classification and IPC A23L 1/0522		
Applicant INNOGEL AG		

<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>6</u> sheets, including this cover sheet.</p> <p><input checked="" type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of <u>7</u> sheets.</p>	
<p>3. This report contains indications relating to the following items:</p> <p>I <input checked="" type="checkbox"/> Basis of the report</p> <p>II <input type="checkbox"/> Priority</p> <p>III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p>IV <input type="checkbox"/> Lack of unity of invention</p> <p>V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p>VI <input type="checkbox"/> Certain documents cited</p> <p>VII <input type="checkbox"/> Certain defects in the international application</p> <p>VIII <input type="checkbox"/> Certain observations on the international application</p>	

Date of submission of the demand 22 January 2004 (22.01.2004)	Date of completion of this report 19 January 2005 (19.01.2005)
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/CH2003/000616

## I. Basis of the report

## 1. With regard to the elements of the international application:\*

- ☐ the international application as originally filed
- ☒ the description:  
pages 1-4, 6-35, as originally filed  
pages \_\_\_\_\_, filed with the demand  
pages 5, 5a, filed with the letter of 03 December 2004 (03.12.2004)
- ☒ the claims:  
pages \_\_\_\_\_, as originally filed  
pages \_\_\_\_\_, as amended (together with any statement under Article 19  
pages \_\_\_\_\_, filed with the demand  
pages 1-16, filed with the letter of 03 December 2004 (03.12.2004)
- ☐ the drawings:  
pages \_\_\_\_\_, as originally filed  
pages \_\_\_\_\_, filed with the demand  
pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_
- ☐ the sequence listing part of the description:  
pages \_\_\_\_\_, as originally filed  
pages \_\_\_\_\_, filed with the demand  
pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_

## 2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language \_\_\_\_\_ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

## 3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, Nos. \_\_\_\_\_
- ☐ the drawings, sheets/fig \_\_\_\_\_

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\*

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

\*\* Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/CH 03/00616

I. Basis of the report

1. This report has been drawn on the basis of *(Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments.)*:

The valid claims 1 to 16 meet the requirements of PCT Article 34(2)(b). However, the phrase "after shaping" is missing from claim 14.

# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

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## V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

### 1. Statement

Novelty (N)	Claims		YES
	Claims	1-16	NO
Inventive step (IS)	Claims		YES
	Claims	1-16	NO
Industrial applicability (IA)	Claims	1-16	YES
	Claims		NO

### 2. Citations and explanations

#### 1. Reference is made to the following documents:

- D1: DE 100 22 095 A (CELANESE VENTURES GMBH) 22 November 2001 (2001-11-22)
- D2: US-A-5 989 620 (WANG NING ET AL) 23 November 1999 (1999-11-23)
- D3: US-A-3 836 680 (SALZA S) 17 September 1974 (1974-09-17)
- D4: FR-A-2 815 518 (NESTLE SA) 26 April 2002 (2002-04-26)
- D5: US-A-5 281 432 (PLUTCHOK GARY ET AL) 25 January 1994 (1994-01-25)
- D6: US-A-4 590 084 (BELL HARVEY ET AL) 20 May 1986 (1986-05-20)
- D7: US-A-5 451 423 (NOEL JEAN) 19 September 1995 (1995-09-19)
- D8: US-A-5 429 834 (ADDESSO KEVIN ET AL) 4 July 1995 (1995-07-04)
- D9: US-A-5 104 669 (WOLKE MARK ET AL) 14 April 1992 (1992-04-14).

## 2. PCT Articles 33(2) and (3)

The phase consisting of a starch network in part a) of claim 1 and the dispersed phase in part d) of claim 1 can be interpreted to be referring to the same phase. In that case, the matrix in part d), which consists of starch gel, is the actual food in part a).

Owing to the lack of clarity (PCT Article 6) of the newly introduced features, the scope of protection of the claimed subject matter has not changed.

Since:

- every gelatinizable starch can be considered "capable of crosslinking";
- the definitions "starch capable of cross-linking" (NS) and "available starch" (VS) overlap and hence the term "heterogeneous crystal" loses its significance, that is, becomes unclear (PCT Article 6); moreover, most starch grains can likewise be considered heterogeneous crystals because they generally contain amylose and amylopectin; and
- starch in heat-treated food such as bread and pasta, necessarily will have been in an at least partly amorphous state at least once, that is, the starch will at least once have been in a state in which the crystallization potential had largely been exhausted,

the claimed subject matter cannot be distinguished from a food containing cooked or partly cooked starch.

Document D1 discloses starch networks for use in food. Document D2 (example) discloses an extrusion of pasta at up to 135 °C. Document D3 discloses gluten-free pasta and a method of production based on a combination of gelatinized and non-gelatinized starch. Document D4 discloses gluten-free pasta made from modified gelatinized starch, natural starch and gluten-free flour. Document D5 (example 8) discloses pasta made from starch with a high amylose content and flour (wheat or maize) to increase cooking resistance. Document D6 (example) discloses the use of starch with a high amylose content for the production of pasta in tin cans. Document D7 (example 1) discloses cooked and extruded cereal products containing preheated flour. Document D8 (example 1) discloses reconstituted chips which in addition to a pregelatinized wax corn starch also contain another starch. Document D9 (example) discloses dough products which in addition to flour contain a starch with a high amylose and amylopectin content.

Consequently, the valid claim 1 is not novel (PCT Article 33(2)).

In addition, the starch-gel matrix in part d) and the starch network matrix in part a) can be interpreted to be one and the same, since a starch network cannot be distinguished from a starch gel. In this case, the claimed subject matter cannot be distinguished from a food containing partly cooked starch, that is, both cooked and uncooked starch.

*Mutatis mutandis*, the above also applies to the subject matter of claim 13. In addition, the subject matter of claim 13 does not define a method step but the result to be achieved (PCT Examination Guidelines, paragraph III-

4.7).

The dependent claims contain no features which, combined with the features of any claim to which they refer, meet the PCT requirements for novelty and inventive step.

As regards the wording of part b) of claim 1, wherein the products are characterized by a method for producing them, this is admissible only if the products themselves satisfy the requirements for patentability (PCT Examination Guidelines, paragraph III-4.7(b)).

Moreover, the parameters in claims 7 to 9 and 11 are unusual and hence no useful comparison can be drawn with respect to the prior art (PCT Examination Guidelines, paragraph III-4.7(a)).